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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,535	02/25/2002	Yukiko Takeda	500.41227X00	4269

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EXAMINER

AST, FATIMA M

ART UNIT PAPER NUMBER

2143

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/081,535	<b>Applicant(s)</b> TAKEDA ET AL.	
	<b>Examiner</b> Fatima Ast	<b>Art Unit</b> 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected:
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>25Feb02 27 JAN 05</u> | 6) <input type="checkbox"/> Other: _____  |

*Jul*

### DETAILED ACTION

Claims 1-19 are pending.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (US 6,118,784).

3. Regarding claim 9, Tsuchiya discloses an address translator connected to both a first network conforming to a first addressing system and a second network conforming to a second addressing system, said address translator comprising:

4. a translating part for translating a first address in input information conforming to said first addressing system to a second address conforming to said second addressing system, or vice versa based on said translation rule (Fig. 1 element 11); and

5. a function of outputting said input information and said translation rule (Fig. 1 element 10).

6. Tsuchiya does not specifically enumerate a memory part for holding a translation rule for translating said first addressing system to said second addressing system, or vice versa, however, Tsuchiya does disclose a memory part holding a translation table, where the table provides the correspondences between addresses conforming to IPv4 and IPv6 (Fig. 1 element 15). It would have been obvious for said translation table to

constitute translation rules, inasmuch as the contents of the table provides the means for translating addresses between the two protocols.

7. Regarding claim 10, Tsuchiya discloses an address translator according to claim 9, further comprising a function of receiving said input information having a translated address using said outputted input information and translation rule (Fig. 1 element 10) where the destination network of the message receives the translated information via the IP transmitting and receiving means.

8. Claims 1-8 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (US 6,118,784) in view of Dorenbosch (US 2002/0138622 A1).

9. Regarding claim 1, Tsuchiya discloses an address translator for connecting a network A conforming to a protocol P to a network B conforming to a protocol Z, said address translator comprising:

10. an address translating function for translating an address conforming to the protocol P to an address conforming to the protocol Z, or vice versa (column 1 lines 47-58, column 5 lines 42-49); and

11. a detecting function for detecting a communication conforming to a particular protocol (column 5 lines 51-55, column 8 lines 11-41), where the address translator (identified by Tsuchiya as a converting apparatus) receives messages from each of an IPv4 network and an IPv6 network and acts on those messages accordingly based on the protocol to which they conform,

12. wherein said address translator translates an address described in a first region of communication data by said address translation function (column 8 lines 18-41)

where the IP header converting means translates an address described in the IP header, and

13. when said address translator detects a communication conforming to said particular protocol, said address translator creates translation information including a correspondence relationship between addressed in the protocol P and addresses in protocol Z (column 7 line 55 – column 8 line 9), where IP address conversion information is created.

14. Tsuchiya does not specifically enumerate said translation information is for translating an address described in a second region of the communication data.

15. Dorenbosch discloses translating IP addresses contained in the body of an SIP message (paragraph 0030). It would have been obvious to combine second region translation embodied in the SIP message translation of Dorenbosch with the cross-protocol translation of Tsuchiya in order to gain the advantage of effective and efficient communications across networks implementing different protocols as taught by Tsuchiya.

16. Regarding claim 2, Tsuchiya-Dorenbosch discloses an address translator according to claim 1, further comprising communicating means for communicating with a server device (Tsuchiya column 6 lines 53-61, where communication is with a DNS server, column 7 lines 35-49, where communication is with a DHCP server, Dorenbosch paragraphs 0018 and 0021, where the address translator is coupled to the server),

17. Tsuchiya-Dorenbosch does not specifically enumerate wherein said address translator sends said translation information to said server device, and receives

information including said second region which has been translated by said server device, however, the combination does teach an application layer gateway (ALG) that performs application dependent address translation within the payload (Dorenbosch paragraph 0017). It would have been obvious for the ALG to be implemented on the server device as taught in Dorenbosch such that the network address translator (NAT) would send translation information to the server and receive information including the translation of the second region from the ALG. Dorenbosch teaches that the ALG is normally implemented as a software program and it is known that software programs reside on servers.

18. Regarding claim 3, Tsuchiya-Dorenbosch discloses an address translator according to claim 1, further comprising a processing part for translating an address described in the second region of the communication data (Dorenbosch paragraph 0030).

19. Regarding claim 4, Tsuchiya discloses a method of processing a message comprising:

20. first translation processing for translating information in the first part from information conforming to a first protocol to information conforming to a second protocol (column 1 lines 47-58, column 5 lines 42-49).

21. Tsuchiya does not specifically enumerate the message including a first portion and a second portion nor determination processing for determining whether or not the second portion requires a translation; and second translation processing for translating

information in the second portion, determined to require a translation, from information conforming to the first protocol to information conforming to the second protocol.

22. Dorenbosch discloses a message with a header and a payload (Figure 2).

Dorenbosch further teaches identifying a SIP message body and performing translation on the SIP message body (paragraph 0030). It would have been obvious to combine the inventions of Tsuchiya and Dorenbosch as noted above in claim 1.

23. Regarding claim 5, Tsuchiya-Dorenbosch discloses a message processing method according to claim 4, further comprising: using a first server and a second server (Tsuchiya Fig. 3 elements 1, 4 and 6).

24. Tsuchiya-Dorenbosch does not specifically enumerate performing said first translation processing in said first server, however, it would be obvious for the address translator of Tsuchiya to be implemented on a server, as said translator provides services to each of the two networks it is interconnecting.

25. Tsuchiya-Dorenbosch does not specifically enumerate transferring the information in said second portion from said first server to said second server, however, does teach an ALG that performs application dependent address translation with the payload (Dorenbosch paragraph 0017). It would have been obvious for the ALG to be implemented on the server device as taught in Dorenbosch such that the NAT would transfer information in the second portion (the second portion being the payload of the message) to the ALG on the second server.

26. Tsuchiya-Dorenbosch discloses said second server extracting a parameter which requires a translation from said second portion; performing said second translation

processing on said extracted parameter in said second server; and transferring the information in said second portion which has undergone said second translation processing from said second server to said first server (Dorenbosch paragraph 0017, where the address within the payload is extracted, translated and transferred to the first server).

27. Regarding claim 6, Tsuchiya-Dorenbosch discloses a message processing method according to claim 5, wherein:

28. said second server has table indicative of parameters which require a translation, and extracts a parameter which requires a translation from said second portion based on said table (Tsuchiya Fig.1 element 151). The address conversion table as taught by Tsuchiya contains parameters (IP addresses) which require translation. Although not specifically taught as being on the second server, it would have been obvious for the ALG to have a table indicating the parameters which require translation, corresponding to the address conversion table in order for the ALG to address translation as taught by Dorenbosch.

29. Regarding claim 7, Tsuchiya-Dorenbosch discloses a message processing method according to claim 5, where:

30. said first server transfers the parameter which requires a translation together, with a tag added thereto, in said second portion to said second server (Dorenbosch paragraph 0030) where the NAT transfers the SIP message body to the ALG and the SIP message body contains a tag assigned by the NAT (the IP port number), and



31. said second server extracts a parameter which requires a translation from said second portion based on said tag (Dorenbosch paragraph 0030) where the ALG identifies the IP addresses and port numbers that need translation.

32. Regarding claim 8, Tsuchiya-Dorenbosch discloses a message processing method according to claim 4, wherein said first portion is an IP header (Dorenbosch Fig. 2 element 201), said second portion is a payload including an SIP message (Dorenbosch Fig. 2 element 205), one of said first protocol and second protocol is IPv4, the other is IPv6 (Tsuchiya Fig. 3 unnumbered elements "IPv4 Network" and "IPv6 Network"), and information for translation is an address (Dorenbosch paragraph 0017).

33. Regarding claim 11, Tsuchiya discloses an address translator according to claim 10 (as noted above), further comprising a communication function for communicating with a server device (column 6 lines 53-61, where communication is with a DNS server, column 7 lines 35-49, where communication is with a DHCP server),

34. Tsuchiya does not specifically enumerate wherein said address translator sends said input information to said server device, and receives said input information having an address translated by said server device.

35. Dorenbosch discloses sending input information to an ALG (as noted in claim 2 above). It would have been obvious to combine the inventions of Tsuchiya and Dorenbosch as noted in claim 1 above. The combination teaches an ALG that performs application dependent address translation within the payload (Dorenbosch paragraph 0017). It would have been obvious for the ALG to be implemented on the server device as taught in Dorenbosch such that the NAT would send input information to the server

and receive said input information including the translation of an address from the ALG. Dorenbosch teaches that the ALG is normally implemented as a software program and it is known that software programs reside on servers.

36. Regarding claim 12, Tsuchiya-Dorenbosch discloses an address translator according to claim 11, further comprising:

37. a function of detecting an SIP communication (Dorenbosch paragraph 0021); and

38. a function of creating translation information including a correspondence relationship between an address in the first network conforming to the first addressing system and an address in the second network conforming to the second addressing system, in association with said server device, when an SIP communication is detected (Tsuchiya column 6 lines 4-14).

39. Regarding claim 13, Tsuchiya-Dorenbosch discloses an address translator according to claim 12, further comprising a function of detecting information for translation included in the SIP communication, and adding identification information to said information for translation (Dorenbosch paragraph 0030) where a dynamic port address is added.

40. Regarding claim 14, Tsuchiya-Dorenbosch discloses an address translator according to claim 9, wherein the SIP communication is detected based on information on a destination, information on the destination and a port thereof, or information on the port (Dorenbosch paragraph 0030).

41. Regarding claim 15, Tsuchiya-Dorenbosch does not specifically enumerate a processing part connected through an internal bus, where said input information is sent

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to said processing part through said internal bus, and said input information having a protocol translated by said processing part is received through said internal bus.

However, Tsuchiya-Dorenbosch does teach a connecting between processing part which does protocol translation and which is connected to other processing parts (Tsuchiya Fig. 1 elements 10, 11, 15). It would have been obvious for the connections between the processing parts to be an internal bus in order to gain the advantage of having all of the processing parts incorporated within a single device in order to gain the advantage of speed and size.

42. Regarding claim 16, Tsuchiya discloses in a communication network in which a network conforming to a protocol P and a network conforming to a protocol Q are interconnected through an address translator (Fig. 3, where element 1 connects an IPv4 network to an IPv6 network), a server device operative in cooperation with said address translator (column 6 lines 53-61, column 7 lines 35-49).

43. Tsuchiya does not specifically enumerate said server device translates an address of a predetermined portion, the address of which has not been translated by said address translator, however Tsuchiya does teach the address translator requesting and receiving information from the server device (column 7 lines 7-12). Dorenbosch discloses a NAT requesting translation of a predetermine portion by an ALG (application layer gateway) (paragraph 0017). It would have been obvious for the functional of the ALG of Dorenbosch to be implemented on the server device of Tsuchiya to provide application depended address translation as taught by Dorenbosch.

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44. Regarding claim 17, Tsuchiya-Dorenbosch discloses a server device according to claim 16, wherein said server device translates an address using translation information stored in said address translator (Tsuchiya column 6 lines 4-9, where address translation information is stored in the conversion information holding means).

45. Regarding claim 18, Tsuchiya-Dorenbosch discloses a server device according to claim 17, wherein said translation information is an address translation rule between the protocol P and the protocol Q (Tsuchiya column 6 lines 4-9, where correspondence between IPv4 and IPv6 addresses are held).

46. Regarding claim 19, Tsuchiya-Dorenbosch discloses a server device according to claim 18, wherein said translation information further includes information for specifying said predetermined portion (column 6 lines 4-9 where the predetermined portion is an IP address).

### ***Conclusion***

47. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,708,219 to Borella et al.

US 6,822,957 to Schuster et al.

US 6,690,669 to Tsuchiya et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatima Ast whose telephone number is (571) 272-7217. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fatima Ast  
Examiner  
Art Unit 2143

FMA

A handwritten signature in black ink, appearing to read 'William C. Vaughn, Jr.', with a large, stylized circular flourish at the end.

WILLIAM C. VAUGHN, JR.  
PRIMARY EXAMINER  
30 May 05